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ABSTRACT

This book presents a story of the history of gravity, the glue of the universe, and is based on two premises: (1) an understanding of mathematics is not required to grasp the concepts and implications of relativity; and (2) relativity has altered forever the perceptions of gravity, space, time, and how the universe works. A narrative text section at the beginning of each chapter details the history of scientific thought and a total of 12 lesson plans employ the theme of gravity to teach scientific concepts and processes. The nine chapters contain information and activities related to the theories of Aristotle and Galileo, the nature of space, the principles of relativity, Einstein's view of gravity, the life cycle of stars, and black holes. References and a selected bibliography that includes Internet resources are provided. The appendix contains information on how to weigh the earth, permittivity, special relativity, and calculating the gravitational radius. Contains 29 references. (DDR)

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